

**Federal Geographic Data Committee  
National Spatial Data Infrastructure  
Fiscal Year 2000 Cooperative Agreements  
Program  
Program Announcement Number 00HQPA0004**

**CLOSING DATE: APRIL 25, 2000  
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**Federal Geographic Data Committee  
National Spatial Data Infrastructure  
FY 2000 Cooperative Agreements Program  
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**Federal Geographic Data Committee  
National Spatial Data Infrastructure  
Fiscal Year 2000 Cooperative Agreements Program  
Program Announcement Number 00HQPAA0004**

Program Scope

The purpose of the National Spatial Data Infrastructure (NSDI) Cooperative Agreements Program (CAP) is to fund innovative projects within the Geographic Information System (GIS) community to build the infrastructure necessary to effectively discover, access, share, manage, and use digital geographic data.

The NSDI consists of the technologies, policies, organizations and people necessary to promote cost-effective production, and the ready availability and greater utilization of high quality geospatial data among a variety of sectors, disciplines and communities. Specific NSDI areas of emphasis include: metadata documentation, clearinghouse establishment, framework development, standards implementation and GIS organizational coordination.

Since 1994 the Federal Geographic Data Committee (FGDC) has funded projects that advance the NSDI in partnership with the geospatial data community. Organizations are increasingly using metadata as an internationally recognized means of preserving an organization's investment in creating geospatial data, as well as providing users with the ability to discover and evaluate data. At present, there are over 200 clearinghouse sites globally that provide for data discovery. Collaboration among the geospatial community is becoming increasingly necessary due to limited available resources in order to meet the demand of communities to create and use geospatial data for making sound decisions. Also, there is a growing need for the availability of common basic framework data that's reliable and can be used for timely, cost-effective applications.

Fiscal Year (FY) 2000 NSDI Cooperative Agreements Program

(1). The purpose of the NSDI infrastructure is to improve the ability and efficiency of organizations to discover, share, maintain, and utilize geospatial data in carrying out their business. The CAP supports efforts to implement this infrastructure. This program does not support proposals for the *creation* of geospatial data nor should it be regarded as the means to initiate an organization's basic GIS operations through the acquisition of equipment or staff. A total of \$1,000,000 in funds is available for the FY 2000 program. The projects will be funded for one year. The projected schedule for review and evaluation of proposals is May, 2000, with award notification made by July, 2000. Project work is to commence by September, 2000. Start dates of October 1, 2000 or after are not authorized under this announcement. Applications are open to Federal, state, and local governments, commercial, academic, non-profit, and Native American Tribal organizations.

(2). Funding will be awarded in five program categories as follows:

(Category 1) The Don't Duck Metadata category provides assistance to organizations in acquiring the skill and the ability to document data for clearinghouse discovery. Metadata is a basic first step in implementing the NSDI.

(Category 2) The ISO Metadata Software Development category provides funding for the development of public domain software for the conversion of FGDC-endorsed metadata content standard to the impending international metadata standard.

(Category 3) The ISO Metadata Training category provides funding to develop and implement an ISO metadata training program for the geospatial data community training.

(Category 4) The Web Mapping Testbed Projects goal is to develop the technical ability for users to discover and view map data from multiple map servers through the National Geospatial Data Clearinghouse. This technical ability will be based on and assist in refining the evolving OpenGIS Consortium's open specifications for web mapping.

(Categories 5 and 6) The Framework Demonstration Projects categories will fund projects to demonstrate the ability to address sound community decision-making through the collaborative use, maintenance and sharing of basic geospatial Framework data. Two categories will be funded in the years CAP. The first (Category 5) is for U.S. collaborative projects and the second (Category 6) is for a collaborative project between organizations in the U.S. and Canada.

*Further information concerning Category 6 is not yet available and will be released at a future date as an amendment to this Program Announcement. It's anticipated that information concerning Category 6 will be available approximately March 15, 2000.*

**(3). Please note that under this FY 2000 CAP, applicant organizations may submit only one proposal package. The proposal may address only one of the six project categories.**

#### FGDC Background Information

Before filling out an application, familiarize yourself with the NSDI and its clearinghouse, metadata, standards and framework programs by reading the material included in the informational attachments in this Program Announcement. Also visit the FGDC website at <http://www.fgdc.gov>. There you can find extensive information on the NSDI as well as organizational contacts. You may want to read brief descriptions of what others have done in the past to document their data sets under previous NSDI programs. See <http://www.fgdc.gov/funding>.

## Application Categories Overview

The following table outlines the general characteristics for the five different project categories (the sixth to be issued approximately mid-March). Please note that the sections relevant to preparing an application for a particular CAP category are indicated.

<b>CAP 2000 Categories</b>	<b>Number Of Projects Approx.</b>	<b>Level of Project Funding</b>	<b>Partnership Requirement</b>	<b>In-kind Match Requirement</b>	<b>Relevant Package Sections</b>
<b>1 “Don’t Duck Metadata</b>	20 –40	\$2,000 – \$50,000	None	None	I. (A.-D.) VI. (A.-H.)
<b>2 ISO Metadata Software Development</b>	1-2	\$30,000	None	None	II. (A. – D.) VI. (A.-H.)
<b>3 ISO Metadata Training</b>	1-2	\$70,000	None	None	III. (A.-D.) VI. (A.-H.)
<b>4 Web Mapping Testbed Projects</b>	3-4	\$55,000	Required	None	IV. (A.-E.) VI. (A.-H.)
<b>5 Framework Demonstration Projects</b>	4-5	\$70,000	Required	100% Match Required	V. (A.-I.) VI. (A.-H.)

### **I. CATEGORY 1: “DON’T DUCK METADATA”**

#### A. Scope

The project objective for this category is the documentation of geospatial data through metadata creation and serving that documentation on the Internet through an NSDI clearinghouse. Under this category, funds are provided for organizations in need of assistance in metadata creation and clearinghouse development, and also for those organizations that can provide training assistance or state/regional consolidated assistance efforts. Under this FY 2000 program, all themes (not just framework themes) of digital geographic data are appropriate.

Organizations receiving awards under the FY 1999 “Don’t Duck Metadata” program may apply, however, applicants for the new FY 2000 “Don’t Duck Metadata” program must indicate how

the new project will incorporate the objective stated above, and how the project extends beyond the goals of its previous project.

## B. Program Goal and Funding Priorities

The goal of the “Don’t Duck Metadata” program category is to provide funding through cooperative agreements to help organizations create descriptions (metadata) of geospatial data sets and contribute these descriptions to a public, Internet-based clearinghouse.

(1). For those organizations that need help documenting their data sets and serving the descriptions, the tasks include:

- labor costs to document data sets; and,
- travel to attend a training workshop in their region (completed within one day)

(2). For those organizations that can provide help, the tasks include:

- the cost of putting on training workshops;
- travel either within or outside state or region;
- equipment and facility rental; and,
- other necessary expenses

(3). For those applicants submitting a consolidated proposal funding may cover the following:

- any of the above tasks; and
- funding for coordination expenses

(A consolidated project consists of multiple organizations coordinated by a regional or state organization. The coordinating organization submits a summarized project proposal.)

This program does not have a set award amount for individual project efforts. It is the intention of the FGDC to fund as many applicants as possible. The FGDC may negotiate with applicants to reduce the amount of funding requested, in order to meet this funding goal.

Organizations in a particular geographic area that wish to help others may consider contacting the coordinating body in their region in order to locate other organizations conducting similar work. These groups can submit a consolidated proposal or submit a proposal independently. However, organizations cannot apply under more than one application. The FGDC can assist in matching organizations that need help with organizations that are willing to provide help within a geographic area. The FGDC web site provides information on state coordinating councils and local clearinghouse sites

(<http://www.fgdc.gov/stakeholders/partnerships/partroost.html> and [http://clearinghouse4.fgdc.gov/registry/clearinghouse\\_sites.html](http://clearinghouse4.fgdc.gov/registry/clearinghouse_sites.html) respectively).

### C. FGDC Review of the Application

The FGDC will evaluate the applications and match organizations that need help to document and serve their data sets with organizations in their geographic area. The applicants needing help will agree to document data sets they have in conformance to the FGDC metadata standard. The organizations providing the help will agree to mentor organizations needing help in their area (or they may offer help to those outside of their geographic area). Such mentoring might consist of any or all of the following: sponsoring workshops to teach the metadata standard; familiarizing users with an automated metadata collection system; establishing a help desk for users; establishing a clearinghouse node; or serving the data of others through a clearinghouse node. Standardized training materials will be available from the FGDC to all participants.

If no experienced mentors are found in an applicant's immediate geographic area, FGDC will attempt to match applicants with organizations in other states. If there is no clearinghouse node within a state and no one applies to establish one, FGDC will assist in arrangements with a currently active clearinghouse node to host data sets. The matching process will be negotiated with both helping organizations and those needing help. Final project budgets will be established during the negotiations. It is the intention of the FGDC to fund as many projects as possible in FY 2000, but there is no guarantee that specific projects will be funded or that organizations will receive the amount they request.

### D. Instructions for Preparing the Application

A complete application for Category 1 "Don't Duck Metadata" proposals includes the following items and should be assembled in the following order:

- (1). **General Application Instructions and Information (Section VI):** Prepare and follow directions for required documentation and special forms as indicated in Section VI.

In addition to the above, include the following:

- (2). **Self-Assessment Checklist:** (Attachment G) Use this form to evaluate your needs and resources. Indicate the number of datasets that will be documented (metadata), and the training assistance you may provide to others. This information will allow the FGDC to match organizations in an area that needs help with those who are willing to provide assistance.
- (3). **Budget Worksheet:** (Attachment H) This worksheet is for planning your budget proposal. Indicate specific funding amounts and units on the form. A range of monetary values is given as a guide. The form includes suggestions for the use of public domain and free software. Please indicate the priority according to the directions on the form. Also note the limitations indicated for overhead (assessments).

Category 1 does not have a predetermined award amount for individual awards. The FGDC goal is to adequately fund as many applicants as possible. Award amounts may be negotiated to meet this objective.

(4). **Application Narrative:** Indicate the following: (a). Principal Investigator's Name and (b). your Organization Name. Describe in the first paragraph the (c). Importance of the Project; why the proposal is important and the difference it will make for your organization. Describe in the second paragraph (d). Plans to Maintain Effort beyond the performance period. Please indicate, if applicable, how your project will further the GIS infrastructure plans of your state or region. Please limit this narrative to one page.

(5). **Consolidated Proposal Project Plan** (If Applicable): Please prepare this plan only if you are a state or regional coordinator and are consolidating the responses of other organizations. Describe the training and other technical assistance requirements of the organization with whom you will be working, and the steps necessary to document (create metadata) through a clearinghouse node. Please indicate how your proposal will further the GIS infrastructure plans of your state or region. Please limit the plan narrative to two pages. Be sure to indicate the principal investigator's name and the name of the organization. In preparing a consolidated proposal, please summarize the budget information of the participating organizations into one Budget Worksheet (Attachment H) and Self-Assessment Checklist (Attachment G).

(6). **Project Evaluation:** The FGDC goal is to adequately fund as many applicants as possible based on the priorities of needs indicated in the Budget Worksheet (Attachment H) and the organizational resources indicated in the Self-Assessment Worksheet (Attachment G). In addition, the FGDC will consider the project significance and long-term effects for the NSDI described in the Project Narrative (II.D.4.) or if applicable, described in the Consolidated Proposal Project Plan (II.D.5.). Proposals that demonstrate the furthering of state or regional NSDI objectives or plans are encouraged. Participants in the 1999 CAP program must indicate how their proposal represents a new effort. Other applicable evaluation and award criteria can be found in section VIII.G.

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----- **End of Category 1** -----

## **II. CATEGORY 2: ISO METADATA SOFTWARE DEVELOPMENT**

### **A. Scope**

The FGDC has been aggressively striving to harmonize the Federal Geographic Data Committee Content Standard for Digital Geospatial Metadata FGDC-STD-001-1998 with the International Organization for Standardization (ISO) Metadata Standard 19115. It's anticipated that the ISO Metadata Standard will be finalized and approved by ISO during FY 2000. The geospatial data community has a need for software that will enable individuals or organizations with FGDC compliant metadata records to be able to convert these existing records to records that comply with the ISO Metadata Standard (or an FGDC Profile of the ISO Metadata Standard). Software developed by applicants will become the property of the FGDC, and will be made available for



free in the public domain. ISO metadata documentation will be made available to the software developer as soon as it's available.

## B. Software Requirements

The software must be capable of performing the following basic functions/requirements:

- (1). Must perform either batch or single metadata record processing;
- (2). Must convert HTML, SGML, and Text FGDC metadata records to HTML, XML/XSL and Text ISO/or FGDC ISO profile;
- (3). Must execute on a variety of hardware platforms (e.g. Unix and PC-based);
- (4). Must provide warning and error messaging for metadata records not successfully converted;
- (5). Must enable user-developed profiles or templates (user would provide DTD); and,
- (6). Must provide read me and documentation files

## C. Funding and Award

Category 2 ISO Software Development Projects are recommended to be funded at the \$30,000 level. In-kind matching funds are encouraged, as well as partnering with other organizations. Approximately one project will be awarded.

## D. Instructions for Preparing Application

A complete application for Category 2: ISO Metadata Software Development proposals includes the following items and should be assembled in the following order:

- (1). **General Application Instructions and Information (Section VI):** Follow directions and prepare required documentation and special forms s indicated in Section VI.

In addition to the above, include the following:

- (2). **Application Narrative:** Applications for funding will be considered in accordance with the following factors set forth below. Proposals should address the following factors in the sequence as they are listed. If special terms are used, please provide sufficient information to permit understanding of the terms. The maximum possible score for all evaluation factors together is 100 points. The recommended length for the application narrative is 5 pages, however, if necessary the narrative can be up to but not exceed 10 pages.

- (a). Please describe previous activities related to the National Spatial Data Infrastructure and especially work or familiarity with the FGDC-endorsed metadata standard. (50 points)
- (b). Please describe your ability or any relevant activity related to the development of software, taking into account the functional requirements stated above. Please indicate any relevant credentials. (50 points)

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## **--- End of Category 2---**

### **III. CATEGORY 3: ISO METADATA TRAINING**

#### **A. Scope**

For the past several years, the FGDC has provided metadata training to individuals or organizations that have requested it. The FGDC has minimal resident staff to perform this training, and therefore, the FGDC is interested in developing a cadre of metadata trainers that would partner with the FGDC to provide individuals or organizations for metadata training. Three levels of training are envisioned: beginners, intermediate, and advanced level. Academia, workshop (technician), and distance learning center training is anticipated.

The FGDC will assist in the coordination function, while the partner organization will perform the training at the requestor's site or at a site mutually agreeable to both parties. Trainers will also assist in developing core metadata training materials for both the FGDC Content Standard for Digital Geospatial Metadata and the ISO Metadata Standard (or an FGDC profile of the ISO Metadata Standard) that will be shared and be made available for free in the public domain.

#### **B. Trainer Requirements**

To be eligible as a metadata trainer, the following requirements must be met (the list is not all inclusive):

- (1). Must show proficiency in metadata training (cite workshops, materials, etc.);
- (2). Must be able to travel at a minimum within a state (national travel preferred);
- (3). Must be flexible in meeting the time and location requirements for the training; and,
- (4). Optionally, have access to computers and computer facilities to demonstrate metadata collection and metadata record conversion.

### C. Funding and Award

Category 3 projects are recommended to be funded at the \$70,000 level. In-kind cost matching is encouraged, as well as partnering with other organizations. Approximately one project will be awarded. Applicants are encouraged to collaborate with other organizations.

### D. Instructions for Preparing the Application

A complete application for Category 3: ISO Metadata Training includes the following items, and should be assembled in the following order:

- (1). **General Application Instructions and Information (Section VI):** Follow directions and prepare required documentation and special forms as indicated in Section VI.

In addition to the above, include the following:

- (2). **Application Narrative:** Applications for funding will be considered in accordance with the following factors set forth below. Proposals should address each of the following factors in the exact headings and sequences as they are listed. If special terms are used, please provide sufficient information to permit understanding of the terms. The maximum possible score for all section factors together is 100 points. The recommended length for the application narrative is 5 pages, however, if necessary the narrative can be up to but not exceed 10 pages.

- (a). Describe your proficiency in metadata training. This can include conducting workshops, development of training materials, and especially work or familiarity with the FGDC-endorsed metadata standard. (50 points)

- (b). Describe your ability to travel to different locations nationally. Also, indicate your access to training facilities that possess computer equipment appropriate for metadata training, collection and conversion. (50 points)

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**--- End of Category 3 ---**

## **IV. CATEGORY 4: WEB MAPPING TESTBED PROJECTS**

### **A. Scope**

Projects funded under this category should result in users gaining the technical ability to discover and view map data from multiple map servers through the National Geospatial Data Clearinghouse. These projects will use the OpenGIS Consortium's pending open specifications for web mapping, and the results of these pilot projects will aid in refining future versions of those standards. Projects must build on existing web mapping and Clearinghouse installations and expertise within a geographic area, and must include two or more participating organizations. There is a requirement to visualize each organization's data in an operational Internet environment.

The OpenGIS Web Map Server Interface Specification provides a set of open protocols that will make it possible for users of ordinary web browsers to obtain and automatically overlay “map layers” of the same geographic region, where each layer is a “view” into geographic data potentially held by a different web server. Map servers can be from different vendors, and they can vary widely in terms of processing capabilities and data type (including multiple vector and raster types). The three protocols are relatively simple, and it’s not difficult, in most cases, to add them to data servers. *GetCapabilities* provides information about what a server can do. *GetMap* retrieves maps which might be georeferenced images (such as JPEG and PNG), simple display graphics (such as SVG or WebCGM), or more universally displayable “picture element” data (Simple Features XML, also known as GML). *GetFeature\_info* provides information about features, so that users can query to retrieve attributes of specific geographic features in a map layer.

GML is a method for encoding OpenGIS Simple Features (basic vector-based geographic data) in XML. XSLT “stylesheets” can then be used to render this “smart data” in application-specific ways. In the OpenGIS Web Mapping Testbed projects, the Web Map Server will be used with catalog services defined in the OpenGIS Catalog Services Specification. This will allow a common architecture for online automated directories or registries of web-based geospatial data and geoprocessing services (rather like “spatial search engines”). As vendors implement these open standards in software, and as online geodata suppliers make their data available, web users will easily find, view overlay, and combine different thematic maps for a given region. For more information, visit the OpenGIS Consortium’s web site at **<http://www.opengis.org>**.

### **B. Applicant Requirements**

- (1). Projects will use the OpenGIS Consortium's open specifications for web mapping (OpenGIS web mapping capability is an "add-on" to existing web mapping software). The FGDC is separately providing the OpenGIS Consortium funding for administrative

support, hosting training sessions and developing a Web Mapping Toolkit (WMT) that will be resources for the testbed projects.

(2). Projects must build on existing web mapping and Clearinghouse installations and expertise within a geographic area, and must include two or more participating organizations, with a requirement to visualize each organization's data in an operational Internet environment.

(3). Applicants sought under this program should have existing expertise with GIS data, FGDC metadata, and a Clearinghouse. They must also have, by time of award, operational map server/data server software in at least one participant organization, in a specific geographic location or region, and operate a Clearinghouse for use in its discovery.

(4). Special consideration will be given to using more than one vendor's map server software among the organizations. Applicants will identify or hire, with funding assistance from FGDC, the name of a full-time (five month) project integrator/programmer to take the lead in mapping software integration in consultation with OpenGIS Web Mapping Testbed programmers. Applicants must include participation from more than two organizations, with a requirement to visualize each others data in an operational Internet environment, around a problem or scope of their choosing.

(5). Applicants should demonstrate commitment to testing, implementing, and improving upon map server and catalog server (Clearinghouse) implementations as input to the evolving OpenGIS specifications. Special consideration will be given for visual integration of same-theme FGDC Framework data layers from different organizations.

### C. Project Funding

The FGDC has allocated funding for approximately three to four projects. The recommended level of funding is \$55,000.

### D. Deliverables

(1). Projects should result in the implementation of software on the Internet that is compatible with the OpenGIS web mapping specifications. This may include reference to a publicly-accessible URL that causes a map to be rendered (e.g. how to invoke the "getMap" request on their server). A sponsored mapping service should also be advertised in the Web Mapping Testbed catalog using a formal service description provided by the OpenGIS Consortium. Such web mapping service information shall be requested by and furnished to the FGDC Secretariat.

(2). Attendance will be required at a Web Mapping Testbed (WMT) orientation and training session. Award recipients are expected to send an individual to a training session in mid-2000 to learn how to utilize the WMT "toolkit". Travel costs (less than \$1,200)

will be covered by the awardee for this requirement. Mandatory attendance will be confirmed by the FGDC Secretariat staff or their designees.

(3). Participation shall be through written correspondence or email with FGDC and/or WMT technical representatives regarding problems, suggestions, and recommendations that assist in the adoption and revision of the WMT standard within the OpenGIS Consortium. Comments shall include a courtesy copy to the FGDC Secretariat.

(4). A presentation of project results or user interfaces developed by the award recipient at one regional, national, FGDC, or OpenGIS-sponsored event is required. Travel costs will be associated with this item. The presentation may include electronic slides, a published paper, or an online accessible "URL," and shall be furnished to the FGDC Secretariat when completed.

#### E. Instructions for Preparing the Application

A complete application for Category 4: Web Mapping Testbed proposals includes the following items and should be assembled in the following order:

(1). **General Application Instructions and Information (Section VI):** Follow directions and prepare required documentation and special forms as indicated in Section VI.

In addition to the above, include the following:

(2). **Application Narrative:** Applications for funding will be considered in accordance with the following factors set forth below. Proposals should address each of the following factors in the exact headings and sequences as they are listed. If special terms are used, please provide sufficient information to permit understanding of these terms. The maximum possible score for all section factors together is 100 points. The recommended length for the application narrative is 5 pages, however, if necessary the narrative can be up to but not exceed 10 pages.

(a). Project Application: Describe intended application (e.g. crime mapping, water quality etc.) and the organizations involved. Describe the plan for project implementation. Describe the organization's roles and commitments to the project. If applicable, describe how this project serves state or regional GIS infrastructure strategic plans and objectives. Describe any implementation of framework related themes or standards. (20 points)

(b). NSDI Related Experience: Describe current level of activities and involvement on any NSDI related work. This includes the NSDI areas of standards, metadata, clearinghouse, framework, or organizational coordination. (20 points)

(c). Clearinghouse and Metadata Capability: Describe experience and current functionality of clearinghouse and FGDC compliant metadata. (20 points)

(d). Web Mapping Service Capability: Describe your project's web mapping service for interactive display of GIS data and the name of the vendors. (20 points)

(e). Project Software Integrator: Describe proposed name, credentials, tasks, workload of prospective project software integrator. (20 points)

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## **----- End of Category 4 -----**

### **V. CATEGORY 5: FRAMEWORK DEMONSTRATION PROJECTS:**

#### **A. Scope**

Applications of digital geospatial data vary greatly, but users have a recurring need for a few common themes of data. In the framework concept, a geospatial data community can work together to produce and maintain commonly needed data for national, regional, state, and local analysis. Within the geospatial data community, multi-agency, and multi-sector partnerships are being established in local and regional areas to collaboratively leverage resources and funding, and coordinate data collection, utilization, and access. The framework concept builds on these activities by identifying a basic information content, and the technical, operational, and business contexts by which a distributed, collaborative data collection and maintenance effort for the framework would operate. Framework data are defined as geodetic control, cadastral, digital orthoimagery, elevation, bathymetry, transportation, hydrography, and governmental units.

The evolving framework concept is important to the geospatial data community. The Federal Geographic Data Committee (FGDC) is sponsoring framework demonstration projects covering a continuous piece of geography. This will further the understanding of the complexities, challenges, and effort required in utilizing framework data to address a common issue between organizations.

#### **B. Framework References**

Applicants can find information on spatial data infrastructures through the FGDC web site (<http://www.fgdc.gov/>). In particular, applicants should familiarize themselves with the following framework reference sources:

(1). Federal Geographic Data Committee web site <http://www.fgdc.gov/>

(2). *Framework Introduction and Guide*, FGDC 1997  
<http://www.fgdc.gov/framework/frameworkintroguide/>

(3). *Development of a National Geospatial Data Framework*, FGDC 1995  
<http://www.fgdc.gov/framework/framdev.html>

### C. Goal of the Project

The goal of this project is to stimulate cooperation over a geographic area through the use of a common geospatial data framework. This project will test methods for building a common framework, stimulate private sector participation, suggest topics for future research and development, and provide guidance on policies and practices for the establishment of an operational framework.

This project should advance the capacity of a community to use framework data. Furthermore, the project should demonstrate collaborative approaches in solving community issues using framework data and concepts. Participation by different kinds of organizations and disciplines is important, as is the ability to integrate and share framework data among these different users.

### D. Funding Support

Projects will be funded up to \$70,000. Depending on merit, up to five proposals will be funded. This estimate does not bind the FGDC to a specified number of awards nor to the amount of any award.

The applicants must demonstrate that they will provide an amount not less 100% total in-kind matching funds from funds other than those received under this project for this same project. These funds may be in the form of cash and/or in-kind contributions (materials, services, or personnel provided to the proposed project). Existing in-place equipment is not to be considered as an acceptable in-kind contribution. No geospatial data sets, whether existing or to be acquired, are to be considered as an in-kind contribution.

### E. Partnership and Resource Match Requirements

(1). Collaboration/Partnership: The applicant must demonstrate that a minimum of two organizations or agencies will participate in the project. One organization will be the lead organization. Funding will be provided only to the lead organization which will have the responsibility to dispense appropriate funds to the collaborating organization(s) within the project.

(2). Applicants are required to make a 100% in-kind award match of funds.

### F. Reporting Requirements

Required reports, presentations, and other participatory involvement:

(1). Initial Orientation meeting involving all key project participants and the FGDC Secretariat. The meeting location shall be proposed by applicant.

(2). Interim progress report



- (3). Final technical report of project activities that include:
- (a). Project summary;
  - (b). Project outcomes;
  - (c). Recommendations for framework development;
  - (d). Assessment of project success;
  - (e). Plans for follow on activities including outreach;
  - (f). Discussion about user-demand requirements for framework data in a national level spatial data infrastructure;
  - (g). Discussion about issues, difficulties, and challenges (both technical and policy) that were encountered; and,
  - (h). Evaluation of the use of both FGDC and non-FGDC standards.
- (4). Publication of project results is strongly encouraged.
- (5). Formal oral presentation of the project (Travel may be required. Applicants should propose meeting location.)
- (6). Display the NSDI logo on participating organizations home page and link to the FGDC Clearinghouse server if applicable to the project.

#### G. Publicity

It's important that project results receive wide dissemination to increase the base of knowledge and experience that can be shared throughout the profession and geospatial community. Organizations receiving an award are encouraged to publish the results of any work supported under this Program Announcement, without review by the FGDC, however, publications or other written products resulting from the project must acknowledge the financial assistance of the FGDC.

#### H. Instructions for Preparing Application

A complete application for Category 5: Framework Demonstration Projects (U.S. Collaborative Projects Only) proposals includes the following items and should be assembled in the following order:

- (1). **General Application Instruction and Information (Section VI.)**: Follow directions and prepare required documentation and special forms as indicated in Section VI.

In addition to the above include the following:

#### I. Proposal Application Narrative

Applications for funding will be considered in accordance with the following factors set forth below. Proposals should address each of the following factors in the exact headings and sequence as they are listed. If special terms are used (e.g., integration, conflation, transaction etc.), please provide sufficient definition or description of methodology within the context of the

project for clarity. The maximum possible score for all selection factors together is 100 points. The ideal application narrative is five pages and should not exceed 10 pages.

(1). Project Description - Merit to the Framework (20 points)

Proposals will be evaluated on the quality and relevance of the project to the Framework.

- (a). The proposal should include a concise description of the project, a clear statement of project objectives, and an explanation of how, and to what degree, the proposed effort contributes to the development the framework and addresses an issue in need of improved cooperation.
- (b). The proposal should describe efforts to comply with FGDC and non-FGDC geospatial data standards. Furthermore, the proposal should utilize the FGDC Metadata standard or ISO metadata standard (if available), and describe how geospatial Clearinghouse will be utilized in the project.
- (c). Proposals should describe the extent that the project may stimulate growth of similar efforts and what the likely benefits are. Also they should include citations of related and ongoing projects and their connection to such ongoing projects.

(2). Project Approach (15 points)

Applications should outline the steps that will be taken to implement the project.

- (a). Proposals will be evaluated on the degree to which they reflect an understanding and detail of the tasks and procedures necessary to accomplish the stated objective. The proposal will be evaluated to determine whether the resources identified by the applicant to accomplish the tasks are reasonable relative to the anticipated results, and whether they accurately reflect the level of effort described in the proposal, including the necessary facilities, equipment, and supplies.
- (b). Proposals will be evaluated on the adequacy of the methodology to carry out the effort, evidence of adequate planning, effectiveness of the plan of management to assure proper and efficient administration of the project, and quality of the applicant's plans to use its resources and personnel to achieve the project objective.
- (c). The work plan should indicate milestones and clearly identified outcomes as a means of assessing progress. In outlining project tasks, indicate resources committed and organizational roles for each task. Please include a Work Plan Milestone Chart (such as Gantt) illustrating major activities and their completion dates as an attachment to the Application Narrative (the milestone chart does not count against the 10 page narrative limit).

(3). Technical/Operational Context (15 points)

The technical approach will be evaluated on its ability to address the framework goals of:

- (a). Data integration (horizontal and vertical alignment, scale, conflation, generalization, semantics, format conversion, and assessment of data quality);
- (b). Convergence of framework concepts and methodologies with geographic information technologies;
- (c). Maintenance of data;
- (d). Use of NSDI framework data themes: geodetic control, cadastral data, hydrography, elevation, government units, transportation, and orthoimagery; and,
- (e) Implementation of standards for framework data and for framework data certification.

(4). Business Context (15 points)

The application should describe the approach proposed to ensure that the project will result in framework data that are widely used and useful—increased framework data accessibility. Innovative approaches are encouraged. These include:

- (a). avoidance of restrictive practices that would inhibit the use of the framework;
- (b). provide information about data limitations, including suggested optimal uses of data, disclaimers and liability;
- (c). be available in public and non-proprietary format(s);
- (d). conform to approved standards, where applicable; and,
- (e). address certification of framework data.

(5). Institutional and Organizational Process (15 points)

Innovative institutional arrangements are needed to ensure a robust and well-maintained framework. Ideally, the framework data for a geographic area will be developed, maintained, and integrated by organizations that produce and make use of data for that area. In addition, there is a need to ensure that geographically-based units of framework data can be integrated to support applications for different or larger geographic areas.

- (a). The application should describe the institutional interactions among the project participants for the development, maintenance, and use of framework data;

(b). The application should describe the means of providing for communication and outreach to stakeholders, such as, web pages, workshops, and informational meetings. Also, the proposal should describe ways to improve project visibility; and,

(c). The application should describe the degree that the project accommodates the participation of new or other organizations having similar data interests over the project area.

(6). Project Participants/Experience (10 points)

Each project must involve two or more organizations. Proposals will be ranked based on the level and diversity of participation. Applications should clearly define the tasks and responsibilities of each collaborative organization (Complete the Agreement of Participation Attachment R).

Proposals will be evaluated to assess the applicant's experience and competence to perform the proposed effort successfully, including the following: the significant qualifications of key personnel to be used in the project; the time that each person named will commit to the project; and whether the staffing is adequate to complete the effort in the designated time frame. Describe experience, special qualifications, and skills held by the staff for performance of the project. If appropriate, the applicant's previous record of performance in conducting similar projects should be mentioned. (Resumes of key personnel may be provided as attachments).

7. Commitment to Effort (10 points)

Applicants will be evaluated on the extent to which there is a demonstrated capability and willingness to continue the project after the performance period ends including: plans for continued outreach, plans to disseminate project results through a clearinghouse, and the potential to generate more geospatial framework activities. The proposal should show clear intent of strong and continuing organizational willingness to share geospatial data resources, including participating in cooperative arrangements with other organizations.

**n ----- End of Category 5 -----**

## **VI. GENERAL APPLICATION INSTRUCTIONS AND INFORMATION**

### **A. Eligibility**

(1). Applications from Federal agencies, State and local government agencies, educational institutions, private firms, private foundations, non-profit organizations, and Federally acknowledged or state-recognized Native American tribes or groups are invited to apply under this Program Announcement.

(2). No USGS cooperative funds will be used to reimburse U.S. Federal employees travel, per diem, etc.

(3). All activities conducted under the project must be carried out by the Recipient and their collaborators. Subcontracting activities, other than those specified in the proposed application and approved in the negotiated agreement, will not be allowed without the written permission of the Administrative Contracting Officer.

(4). All activities proposed should be completed within one calendar year after award of the cooperative agreement.

#### B. Unsuitable Applications

(1). Applications will not be considered for projects on National Spatial Data Infrastructure topics not being sought under this Program Announcement.

(2). Digitizing and other forms of spatial data collection are not considered appropriate activities for funding under this Program Announcement. The purchase or upgrade of a Geographic Information System (GIS) is also not considered appropriate.

(3). Applications from foreign governments, foreign citizens, educational institutions in foreign countries or firms located in foreign countries will not be accepted.

(4). Applications in which there is a real or an appearance of a conflict of interest will not be accepted.

(5). Applications solely involving the direct procurement of a product or service or large purchases of equipment will not be considered (i.e. the purchase of such as computer systems equipment and software).

#### C. Preparation of the Application

The application package should be assembled in the following order:

(1). **Standard Form SF – 424** *Application for Federal Assistance* (Attachment A): This coversheet provides general information about the proposal. This document should be signed by an individual authorized to commit the applicant's organization.

(2). **Standard Form SF – 424A** *Budget Information – Non-Construction Programs* (Attachment B): Fill out Section B - Budget Categories, Number 6. Object Class Categories only. No other part of the form requires completion. The proposed budget shall be prepared in the following order, showing the amount proposed for each of the following items. If applicable, indicate the amount of cost sharing by the recipient for each item.

(a). Personnel (6.a): Salaries and wages. Identify individuals or categories of salaries and wages, estimated hours or percent of time, and the rate of compensation proposed for each person or category. Include an explanation of the amounts included for projected increases if the rate of pay shown is higher than the current rate of pay. The applicant is advised that tuition remission and other forms of compensation paid as, or in lieu of, wages to students performing necessary work are allowable provided that the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of the work.

(b). Fringe Benefits (6.b): Labor overhead. Indicate the rates/amounts in conformance with normal accounting procedures. Explain what costs are covered in this category and the basis of the rate computations. Indicate whether rates are used for proposal purposes only or whether they are also fixed or provisional rates for billing purposes. Include a copy of the most current negotiated rate agreement, if applicable.

(c). Travel (6.c): State the purpose of the trip and itemize the estimated travel costs to show the number of trips required, the destinations, the number of people traveling, the per diem rates, the cost of transportation, and any miscellaneous expenses for each trip. Calculations of other special transportation costs (such as charges for use of applicant-owned vehicles or vehicle rental costs) should also be shown. Any foreign travel should be clearly stated in the budget. Per diem rates in excess of the U.S. Government Joint Travel Regulations shall not be allowed unless specifically allowed under applicable OMB Circulars. Travel for Federal employees cannot be included.

(d). Equipment (6.d): Show the cost of all special-purpose equipment necessary for achieving the objectives of the project. "Special-purpose equipment" means scientific equipment having an acquisition cost of \$1,000 or more per item. Equipment should be itemized with each item described and its application to the proposed project explained. (General-purpose equipment must be purchased from the applicant's operating funds. Also see (B)(5) above covering "Unsuitable Applications")

(e). Supplies (6.e): Enter the cost for all supplies. Include the cost of office, laboratory, computing, and field supplies separately. Provide details on any specific supplies exceeding \$1,000 in value or which represents a significant portion of the total proposed amount. If fabrication of equipment is proposed, list parts and materials required for each and show costs separately from the other items.

(f). Contractual (6.f): Services or consultants. Identify the tasks or problems for which such services would be used. List the contemplated sub-recipients by name (including consultants), the estimated amount of time required, and the quoted rate per day or hour. If known, state whether the consultant's rate is the same as received for similar services or under Government contracts or assistance awards.

(g). Construction (6.g): Not applicable to CAP program; do not use this category.

(h). Other (6.h): Publication costs. Show the estimated cost of publishing (if appropriate) the results of the project effort, including the final report. Include costs of drafting or graphics, reproduction, page or illustration charges, and a reasonable number of reprints. Use this category for any other costs not indicated above. Itemize the different types of costs such as helicopter use, boats, shipping, telemetry, computing, equipment-use charges, or other services. Provide breakdowns showing how the cost was estimated; for example, computer time should show the type of computer, estimated time of use, and the established rates.

(i). Total Direct Charge (6.i): Total items (6.a.) through (6.h.).

(j). Indirect Charges (6.j): General and administrative (G&A) cost. Show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the cost principles applicable to the applicant's organization. If the applicant has separate rates for recovery of labor overhead and G&A costs, each charge should be shown. Explain the distinction between items included in the two cost pools. The applicant should propose rates that it is willing to establish as fixed or ceiling rates in any resulting award. (Please pay special attention to the requirement to include a copy of the approved negotiated indirect cost rate agreement, if applicable, with the original application *only*.)

(k). Totals (6.k): Amounts proposed. Total items (6.I) and (6.j.).

(3). General Assistance Award Conditions: U.S. organizations that submit applications as a result of this process will be required to sign forms, required by law, in order to receive Federal assistance funding. An authorized official from the applicant organization must read and sign both of these forms. These forms can be viewed by visiting the following Internet site: [www.usgs.gov/contracts/index.html](http://www.usgs.gov/contracts/index.html) They are:

(a). **Standard Form SF – 424B**; *Assurances – Non-Construction Programs* (Attachment C); and

(b). **U.S. Department of the Interior Certifications for Federal Assistance** (Attachment D).

(4). **Proposal Information Summary** (Attachment K): This is a summary of your proposal. Please follow format as shown in the attachment and as applicable. The summary should be in letter-quality type. This information will be used for awarded projects on the FGDC website and publications.

(5). **Other Attachments**: Please follow with any documentation indicated above in the particular category in which you are applying. These include Application Narratives, Worksheets, etc.

#### D. Terms and Conditions:

Awards made under this Program Announcement shall be administered in accordance with:

- (1). **General Terms and Conditions** (Attachment E) and
- (2). **Special Terms and Conditions** (Attachment F).

#### E. Application Closing Date

Applications must be received on or before **April 25, 2000 at 4:00 p.m. EDT**. An application received after the closing date and time will not be considered unless it can be demonstrated that the completed application package was mailed before the deadline and late delivery was due to mishandling by the carrier. An application received after the closing date and time that does not meet the mailing requirements above will be returned to the applicant.

#### F. Delivery of Application

Submit one unbound, signed original and 10 binder-clipped copies of the application package.

- (1). By mail to:

Ms. Kathleen Craig, Contracting Officer  
U.S. Geological Survey  
12201 Sunrise Valley Drive, MS 205B  
Reston, VA 20192.

- (2). By hand: An application that is hand delivered shall be delivered to the U.S. Geological Survey, Office of Acquisition and Federal Assistance, Room 6A331, 12201 Sunrise Valley Drive, Reston, VA. The Office of Acquisition and Federal Assistance will accept hand delivered applications in Room 6A331 during business hours. Business hours are 7:45 a.m. and 4:15 p.m. daily, except Saturdays, Sundays, and Federal holidays.

#### G. Review Process for Applications

Prior to the Panel evaluation, the Contracting Officer will review all proposals for completeness, conformity to application requirements, and overall eligibility. Deficient applications will not be considered. The applicant will be promptly notified in writing with the reason(s) why the application was found to be deficient.

Accepted proposals will be evaluated through formal review panels. Representatives from the FGDC and other individuals with appropriate expertise drawn from participating FGDC organizations will comprise the review panel and will evaluate proposals for program relevance, technical merit, and resources requirements. This process will take up to three months, and applicants will not be notified of the status of their application until the review process is completed.

The FGDC will strive to fund as many projects as possible, but there is no guarantee that specific projects will be funded or that organizations will receive the full amount they request. The level of individual project funding will be determined, in large part, by the number of funded applications received. Other factors may include:



- (1). The commitment of organizations to sustain the effort to contribute to the NSDI, as reflected in the narrative;
- (2). The conformance of project objectives with state or regional GIS infrastructure strategic plans and collaboration with other organizations;
- (3). The geographic distribution of projects; and,
- (4). The limitation of available funds.

Applicants that have been selected for funding will receive a letter from the Contracting Officer advising them of this, and no other acknowledgment of the application will be issued before the evaluation of proposals has been completed.

Applicants will be notified if their application does not fall under the scope of this program. If an application does not meet all requirements, the applicant will receive a letter from the Contracting Officer advising you that the application will not be funded and that a future letter will be issued by the Project Officer stating the reasons why the application was not funded. Resubmissions will not be allowed.

## H. List of CAP 2000 Attachments

The following are the attachments for this Program Announcement.

! The application package and all attachments listed below can be downloaded from the U.S.G.S, Office of Acquisition and Federal Assistance website at: <http://www.usgs.gov/contracts/>

! Other useful information concerning the NSDI and past projects can be found at the FGDC Website at: <http://www.fgdc.gov>.

! Project Categories:

1 = "Don't Duck Metadata, 2 = ISO Metadata Software Development, 3 = ISO Metadata Training, 4 = Web Mapping Testbed Projects, 5 = U.S. Framework Demonstration Projects

Attachment	Attachment Title	Project Categories & Related Attachments					Notes  &  Website Locations
		R = <u>To be completed and returned with application</u>					
		I = Informational					
		1	2	3	4	5	
A	SF 424 Application for Federal Assistance	R	R	R	R	R	www.usgs.gov/contracts
B	SF- 424 A Budget Information - Non-Construction Programs	R	R	R	R	R	<a href="http://www.usgs.gov/contracts">www.usgs.gov/contracts</a>

Attachment	Attachment Title	Project Categories & Related Attachments					Notes  &  Website Locations
		<b>R = <u>To be completed and returned with application</u></b>					
		<b>I = Informational</b>					
		1	2	3	4	5	
C	SF- 424 B Assurances - Non- Construction Programs	R	R	R	R	R	www.usgs.gov/contracts
D	Certifications	R	R	R	R	R	www.usgs.gov/contracts
E	General Terms and Conditions	I	I	I	I	I	www.usgs.gov/contracts
F	Special Terms and Conditions	I	I	I	I	I	Item 1 “Method of Payment” and Item 7 “Payment” instructions are different for Feds and Non-Feds www.usgs.gov/contracts
G	Self-assessment Checklist	R					www.usgs.gov/contracts
H	Budget Worksheet	R					www.usgs.gov/contracts
I	SF-3881 ACH Vendor/Miscellaneous Payment Enrollment Form	(I)	(I)	(I)	(I)	(I)	This form to be completed by applicants selected for funding only www.usgs.gov/contracts/eft/sf3881.pdf

Attachment	Attachment Title	Project Categories & Related Attachments					Notes  &  Website Locations
		R = <u>To be completed and returned with application</u>					
		I = Informational					
		1	2	3	4	5	
J	SF-269A Financial Status Report Short Form	(I)	(I)	(I)	(I)	(I)	To be submitted at completion of project <a href="http://www.usgs.gov/contracts">www.usgs.gov/contracts</a>
K	Proposal Information Summary	R	R	R	R	R	<a href="http://www.usgs.gov/contracts">www.usgs.gov/contracts</a>
L	FGDC Resources	I	I	I	I	I	FGDC Committee and Secretariat contact information <a href="http://www.usgs.gov/contracts">www.usgs.gov/contracts</a>
M	Framework Factsheet				I	I	<a href="http://www.fgdc.gov/publications/documents/framework/frame.pdf">www.fgdc.gov/publications/documents/ framework/frame.pdf</a>
N	Framework Introduction & Guide				I	I	Good introduction to Framework concept <a href="http://www.fgdc.gov/framework/frameworkintroguide/">www.fgdc.gov/framework/frameworkintroguide/</a>
O	Metadata Factsheet	I	I	I	I	I	<a href="http://www.fgdc.gov/publications/documents/metadata/metafact.pdf">www.fgdc.gov/publications/documents/metadata/metafact.pdf</a>
P	Clearinghouse Factsheet	I	I	I	I	I	<a href="http://www.fgdc.gov/publications/documents/clearinghouse/chouse.pdf">www.fgdc.gov/publications/documents/clearinghouse/chouse.pdf</a>

Attachment	Attachment Title	Project Categories & Related Attachments					Notes  &  Website Locations
		R = <u>To be completed and returned with application</u>					
		I = Informational					
		1	2	3	4	5	
Q	SF - 270 Request for Advance or Reimbursement	(I)	(I)	(I)	(I)	(I)	After award, use this form to obtain funds  www.usgs.gov/contracts
R	Agreement of Participation					R	www.usgs.gov/contracts

**—End of CAP Program Announcement 00HQPA0004—**